Notice of Allowability	Application No.	Applicant(s)	
	09/758,970	HARRISON, RONNIE M.	
	Examiner	Art Unit	
	Hai L. Nguyen	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed on 02/28/2005*.

2. ☒ The allowed claim(s) is/are *57-77,79-87 and 90*.

3. ☒ The drawings filed on *09 January 2001* are accepted by the Examiner.

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 4/30/01, 11/18/04, and 02/28/2005.
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

DETAILED ACTION

Response to Amendment

1. The amendment received on 02/28/2005 has been reviewed and considered with the following results:

As to the objections to the claims, Applicant's amendments have overcome the objections, as such; the objections have been withdrawn.

As to the objections to the specification, Applicant's amendments have overcome the objections, as such; the objections have been withdrawn.

As to the rejections to the claims, under 35 U.S.C. 112, 2nd paragraph, Applicant's amendments and clarifications have overcome the rejections, as such; the rejections have been withdrawn.

As to the rejections to claim 78, under 35 U.S.C. 101, Applicant's amendments have overcome the rejections, as such; the rejections have been withdrawn.

As to the prior art rejections to the claims, Applicant's amendment has overcome the prior art rejections, as such; the prior art rejections have been withdrawn. The case is found to be in allowance condition.

REASON FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to disclose or fairly suggest a method of generating a sequence of clock signals (264a – 264n in instant Fig. 3), as recited in claim 57, having specific combination of steps that comprises a step of delay locking (as shown by 254, 252, 260, 290,

310) a reference clock signal (ICLK) to a master clock signal (CMD CLK 42) so that the reference clock signal has a predetermined phase relative to the phase of the master clock signal; and a step of delay locking (as shown by 330, 332, 334, 252, 260) a plurality of clock signals (264a – 264n) to the reference clock signal so that the plurality of clock signals having different respective phases, such as a delayed increment of 11.25 degrees (see page 10, lines 10-26), relative to the phase of the reference clock signal.

The prior art of record fails to disclose or fairly suggest a method of generating a sequence of clock signals (264a – 264n in instant Fig. 3) from a master clock signal (CMD CLK 42), as recited in claim 61, having specific combination of steps that comprises a step of generating (as shown by 330, 332, 334, 252, 260) the sequence of clock signals (264a – 264n) each clock signal of the sequence having a different respective phase, such as a delayed increment of 11.25 degrees (see page 10, lines 10-26), that increases from a first clock signal (264a) to a last clock signal (264n) in the sequence; delay locking the first clock signal and last clock signals to each other so that they have a predetermined phase with respect to each other; a step of delay locking (as shown by 254, 252, 260, 290, 310) one (ICLK) of the clock signals to the master clock signal so that each of the clock signals in the sequence have respective phases with respect to the master clock signal.

The prior art of record fails to disclose or fairly suggest a method of generating a sequence of clock signals (264a – 264n in instant Fig. 3), as recited in claim 66, having specific combination of steps that comprises a step of generating (as shown by 330, 332, 334, 252, 260) the sequence of clock signals (264a – 264n) which are increasingly delayed, such as a delayed increment of 11.25 degrees (see page 10, lines 10-26), from a first clock signal (264a) to a last

clock signal (264n), two of the clock signals in the sequence being delay locked to each other so that they have a predetermined phase with respect to each other; and a step of delay locking (as shown by 254, 252, 260, 290, 310) one (ICLK) of the clock signals to a master clock signal (CMD CLK 42), the clock signals (264a – 264n) in the sequence have respective phases with respect to the master clock signal.

The prior art of record fails to disclose or fairly suggest a method of providing a plurality of clock signals (264a – 264n in instant Fig. 3) that have predetermined phases relative to a master clock signal (CMD CLK 42), as recited in claim 77, having specific combination of steps that comprises a step of producing (as shown by 254, 252, 260, 290, 310) a reference clock signal (ICLK) having a phase relative to the master clock signal that is a function of a first control signal (258); a step of generating the first control signal as a function of the difference in phase (330, 332, 334) between the master clock signal and the reference clock signal; a step of producing (as shown by 330, 332, 334, 252, 260) the plurality of clock signals (264a – 264n) having different respective phases, such as a delayed increment of 11.25 degrees (see page 10, lines 10-26), relative to the reference clock signal that are a function of a second control signal (270); and a step of generating the second control signal as a function of the difference in phase (272) between the reference clock signal and one (264n-1) of the plurality of clock signals.

The prior art of record fails to disclose or fairly suggest a method of providing a sequence of clock signals (264a – 264n in instant Fig. 3) that have predetermined phases relative to a master clock signal (CMD CLK 42), as recited in claim 84, having specific combination of steps that comprises a step of generating (as shown by 254, 252, 260, 290, 310) a reference clock signal (ICLK) having a delay relative to the master clock signal that is a function of a first

control signal (258); a step of generating (as shown by 330, 332, 334, 252, 260) the sequence of clock signals (264a – 264n) each of which has a delay relative to an adjacent clock signal, such as a delayed increment of 11.25 degrees (see page 10, lines 10-26), in the sequence that is a function of a second control signal (270); a step of comparing (254) the phase of the master clock signal to the phase of a first one of the plurality of clock signals and generating the first control signal as a function of the difference therebetween; delay locking the phase of the first clock signal to the phase of the master clock signal; a step of comparing (272) the phase of two of the plurality of clock signals (264a, 264n-1) and generating the second control signal as a function of the difference therebetween; and a step of delay locking (272, 260) the phases of the two clock signals to each other.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The official fax phone number for the organization where this application or proceeding is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1562.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HLN
April 28, 2005